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AUTHOR Patterson, G. R.; Yoerger, K.
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ABSTRACT

A study was designed to determine whether mediational models of parenting patterns account for significantly more variance in academic achievement than more general models. Two general models and two mediational models were considered. The first model identified five skills: (1) discipline; (2) monitoring; (3) family problem solving; (4) positive reinforcement; and (5) involvement. A series of studies developed multi-agent, multimethod indicators for these constructs. The multiple-factor model that was developed from these indicators provided significantly better fits to data than did a single-factor model. This first mediational model defined latent constructs based on teacher ratings of homework completion, parent reports on homework, the frequency with which homework was finished, and the child's seriousness about his homework. The model revealed a strong relation between positive parenting and academic achievement. The second mediational model, the coercion model, found noncompliance to be the core symptom for both child and adolescent antisocial behavior. A strong relation between inefficient parenting and the development of antisocial behavior was also discovered. These findings should encourage investigators to move beyond general models of parenting patterns toward mediational models. Included are 15 references and 4 charts. (SAK)

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A Model for General Parenting Skill is Too Simple: Mediational Models Work Better

G. R. Patterson and K. Yoerger

Oregon Social Learning Center

Eugene, OR

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In S. Lamborn (Chair), Authoritative Parenting and Adolescent Adjustment. Symposium conducted at the biennial meeting of the Society for Research in Child Development, Seattle, Washington, April 1991.

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In the 1950s, 1960s, and 1970s, a series of ground breaking studies mapped out the relation between parent behavior and child adjustment (Baumrind & Black, 1967; Schaefer, 1967; Sears, Maccoby, & Levin, 1957). In his review of these studies, Schaefer (1971) suggested that parenting behaviors might well be described by two bipolar factors: autonomy-control and rejection-acceptance. One might well collapse the four quadrants into some sort of good-to-bad parenting style. Implicit in these research strategies was the idea that the circumplex describing parent behavior could be somehow mapped on to factor structures that described child behavior. For example, one might expect that various definitions of good parenting would covary with the development of child competence and others would covary with measures of child maladjustment. Indeed, Baumrind and Black demonstrated low-level correlations between parent behavior and child behavior observed in the nursery school. The careful attention to measurement issues and the use of multiagent definitions make this a landmark study.

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More recent developments in Baumrind's work show that the three main types of parenting patterns (Authoritative, Permissive, and Authoritarian) have been expanded (Baumrind, 1991). Out of a sample of 44 parents of 9-year-old boys, only about half fit those three patterns. The addition of two more parenting types, Traditional and Rejecting-Neglecting, accounts for the remainder of the sample. It seems clear from the data she presented that in order to understand child adjustment (competence is the term she uses), one must employ more than just measures of one general parenting pattern. In her sample of 9-year-old boys, for example, Baumrind showed that of the 13 boys classified as competent, 11 came from homes that would be described as either Authoritative or Traditional. Of the 13 boys thought to be optimally competent, 5 came from Authoritative homes and 6 came from Traditional homes. Of the 10 boys thought to be incompetent, 6 came from Rejecting-Neglecting homes and 3 came from Authoritarian homes.

More recent efforts to use the Baumrind patterns of parenting have demonstrated that they relate in the expected fashion to academic achievement (Dornbusch, Ritter, Leiderman, Roberts, & Fraleigh, 1987). Questionnaire data from a large sample of adolescents described both their perceptions of parenting practices and their own school grades. The correlations for males were -.18 with Authoritarian Parenting, -.09 with Permissive Parenting, and .08 with Authoritative Parenting. In a similar vein, Steinberg, Elmen, and Mounts (1989) used questionnaires to survey a sample of 10- to 16-year-olds. Their self-reports on three aspects of Authoritative Parenting correlated significantly with achievement test scores (.27 autonomy, .21 acceptance, and .03 control). We return to this study at a later point because Steinberg et

al. (1989), like the present authors, introduce a mechanism mediating the effect of Authoritative Parenting on achievement.

In the sections that follow, we begin with an examination of the contribution of two models of general parenting patterns to academic achievement. Next, we examine two mediational models, one that describes parenting skills thought to be specific to academic achievement and one that is a trait thought to be central in disrupting efforts to teach the child anything at all. The prediction is that the mediational models will account for significantly more variance in achievement than the general models do.

General Parenting Models

In keeping with the Baumrind strategy, we assumed it would be useful to measure a number of parenting skills that we thought we could see in our observations in home settings (Patterson, 1982). We identified five skills: discipline, monitoring, family problem solving, positive reinforcement, and involvement. In a series of studies, we developed and then revised multiagent, multimethod indicators for each of these constructs as well as for the following areas of child adjustment: antisocial, peer rejection, deviant peer group, achievement, depressed mood, and substance use. The information from the indicators is combined to define a latent construct. The itemetric studies that developed the indicators, and the psychometric properties for each construct, were described by Capaldi and Patterson (1989).

The confirmatory factor analyses described by Patterson and Bank (1987) showed that the two parenting practices, monitoring and discipline, thought to be associated with antisocial behaviors could be differentiated (i.e., they define two practices rather than a single "bad" parenting practice.

Patterson, Reid, and Dishion (in press) went on to demonstrate that the three positive parenting practices (positive reinforcement, problem solving, and involvement) really defined three differentiable practices rather than a single "good-bad" dimension. In both instances, the multiple-factor model provided significantly better fits to the data set than did a single factor model.

We began by constructing the most global measure possible of positive parenting. As shown in Figure 1, four latent constructs were used to define Positive Parenting. Notice that this is a rather marginally defined second-order construct; two of the factor loadings are marginal and the remaining two are only modest. As expected, there was a low-order (but positive) path coefficient from the good parenting variable to child academic achievement. Although the general model shows a good fit to the data set, it accounts for only very modest amounts of variance in the criterion. The bivariate correlations are in good agreement with those published by Steinberg et al (1989).

Insert Figure 1 about here

My original motivation for joining this panel was curiosity about how the parenting constructs developed at OSLC would map on to some of Baumrind's parenting patterns. We had included Steinberg's (1987) Family Decision Making instrument in our assessment battery when the boys in the OYS were 15 years old. Both the boys and their parents completed the questionnaire. As shown in Figure 2, the number of items keyed for authoritative parenting style was

tabulated as one indicator for the latent construct, Authoritative Parenting. The other indicators were based on coders' global ratings made after they had coded videotapes of family problem solving interactions. A second indicator was based upon coders' global ratings of the following: parents affectionate with boy, parents give rationale, parents seem to monitor well, and parents seem accepting. The third indicator was also based on coders' global ratings of the quality of the boy's relationship with each of his parents.

Insert Figure 2 about here

As I had hoped, it was indeed possible to build a latent construct for Authoritative Parenting. It in turn was significantly correlated with our second-order construct, Positive Parenting. Incidentally, it took a good deal of tinkering to get the model to fit. When we tried to include the Monitoring indicator, we completely lost the contribution of Steinberg's Family Decision Making indicator for the Authoritative Parenting construct. In that this was the only tie between our definition and that of the other members of the panel, we continued to tinker with the data.

There was one additional problem that should be noted. Most other investigators who have used the Family Decision Making instrument have relied upon adolescents' reports. In the present study, we found that the adolescent data correlated only .07 with parents' reports on the same instrument. Furthermore, the adolescent self-report data did not map on to the other two indicators for Authoritative Parenting. It seems imperative that additional methodologic studies be carried out in order to identify more robust

indicators for the Baumrind patterns. In Susan Lamborn's original formulation for this panel, she raised the question of whether different measures of parenting patterns are getting at the same thing. These findings show that sometimes variables you would expect to covary, in fact do not. This in turn raises some questions about the generalizability of the models obtained.

For comparison purposes, it is interesting to note that the bivariate correlations between achievement and each of the three indicators for the Authoritative Parenting construct were in keeping with the findings of other investigators. For the Family Decision Making indicator, the correlation was .11; for ratings of parent rationale, the correlation was .34; and for ratings of parent-child relationship, the correlation was .27.

Formulations about general parenting skills analogous to Baumrind's Authoritative Parenting account for somewhere between 2% to 13% of the variance, depending upon which samples and measures are employed. These findings are significant and meaningful; by taking this simplistic position, however, we are ignoring important information that could increase our understanding of competent child behaviors.

Mediational Models for Academic Competence

As Steinberg et al. (1989) pointed out, the contribution of general parenting skills to adolescents' cognitions about work orientation is the key to understanding academic achievement. In keeping with the mediational hypothesis, the measure of general parenting skill did not make significant contributions, but the cognitive variables did (after prior GPA, SES, etc. were partialed out).

It is our position that many Authoritative or Traditional parents may fail

to understand the key importance of helping children create a structured environment for consistently carrying out homework assignments and getting to school each day. Such children might be quite bright and have good self-esteem, but still not achieve at their expected level. According to this formulation, the effect of positive parenting on child achievement is mediated by a specific mechanism (i.e., Academic Engagement). Based on the work of DeBaryshe, Patterson, and Capaldi (1991), this latent construct was defined by four indicators: teacher ratings of how often the child completes his homework and completes assigned tasks, parent reports of number of nights per week the child does homework, how often he finishes it, and how seriously he takes his homework.

As shown in Figure 3, there is a strong relation between the prior measures of the Positive Parenting construct and the later measure of Academic Engagement. In keeping with the findings of DeBaryshe et al. (1991), there is a strong connection between Academic Engagement and Academic Achievement. This model accounts for 58% of the variance in the Academic Achievement construct. Of course, it is not surprising to find that children who actually do their homework learn more than children who do not do their homework. The models strongly suggest, however, that the child's actual engagement in the specific activities that lead to learning is related to general parenting skills. The DeBaryshe studies also showed that the impact of parent IQ and education on this process is mediated through the Positive Parenting construct. As is well known, bright, well-educated parents are more likely to have children who are achievers (Scarr, 1985). We can considerably improve our bets, however, if we know how effective these bright, educated parents are

in getting their children to do their homework.

Insert Figure 3 about here

Mediational models work better than general models do. This is hardly surprising; in fact, by definition this must be the case (i.e., it would not be mediated if it were not).

The second mediational model is focused on the child. The coercion model states that early training for compliance is a necessary, but not sufficient, basis from which the socialization process proceeds (Patterson, (1982; Patterson et al., in press). Presumably, noncompliance is the core symptom for both child and adolescent antisocial behavior. In the present context, the noncompliant-antisocial boy is at grave risk for academic retardation. The empirical findings that support this assumption were reviewed by Patterson, DeBaryshe, and Ramsey (1989). The contribution of the boys' antisocial trait to later measures of achievement is shown in Figure 4. It can be seen that ineffective parenting is strongly related to the development of antisocial behavior.

Insert Figure 4 about here

We assume that some parents who are supportive, involved, and good at supervising their children and solving problems might be extremely permissive. Knowing that this produces a boy who is antisocial would significantly increase our bets about achievement.

Discussion

We do not think all studies of academic achievement should end with a tabulation of criterion variance accounted for. On the other hand, variance accounted for is a convenient means for gauging the extent to which we understand who and what does or does not contribute to achievement. It is in that spirit that we encourage other investigators to move beyond the general models of parenting patterns toward mediational models.

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Figure Captions

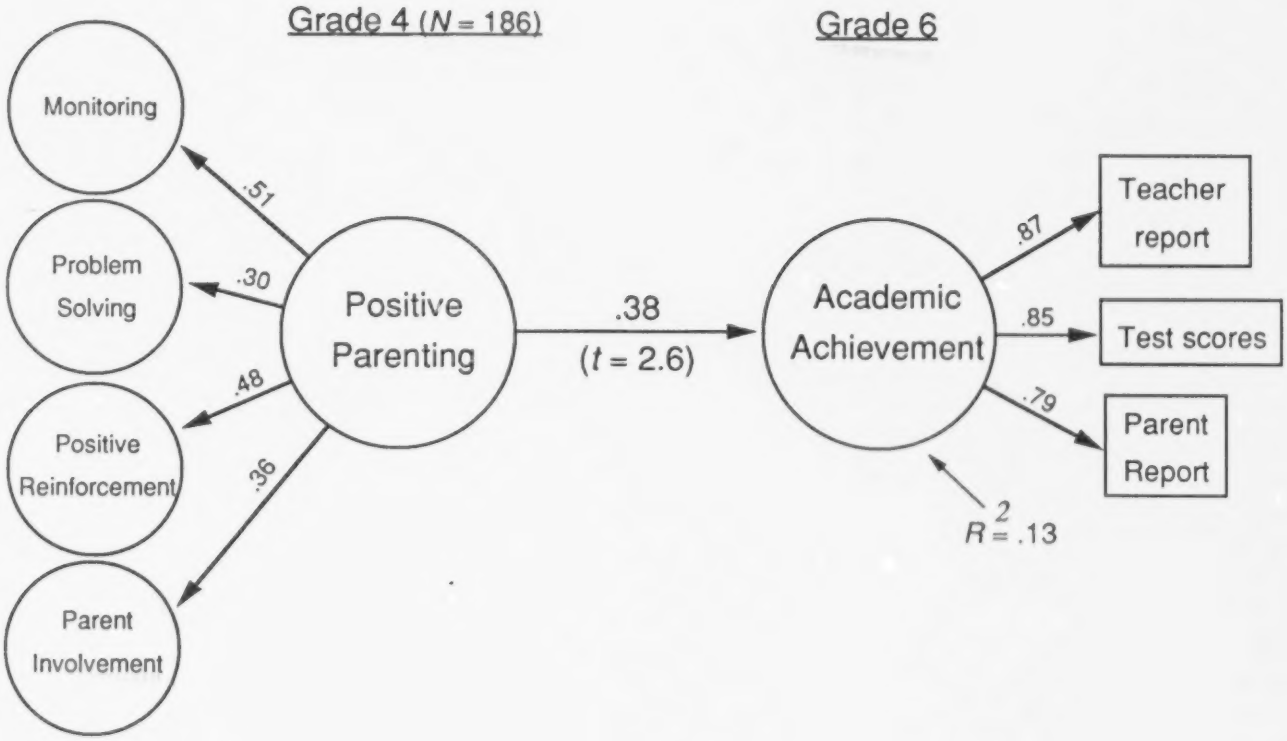
Figure 1. General parenting skills and adolescent competence.

Figure 2. Latent constructs for authoritative and positive parenting (measured at Wave 5).

Figure 3. General plus specific parenting skills predicting adolescent academic achievement.

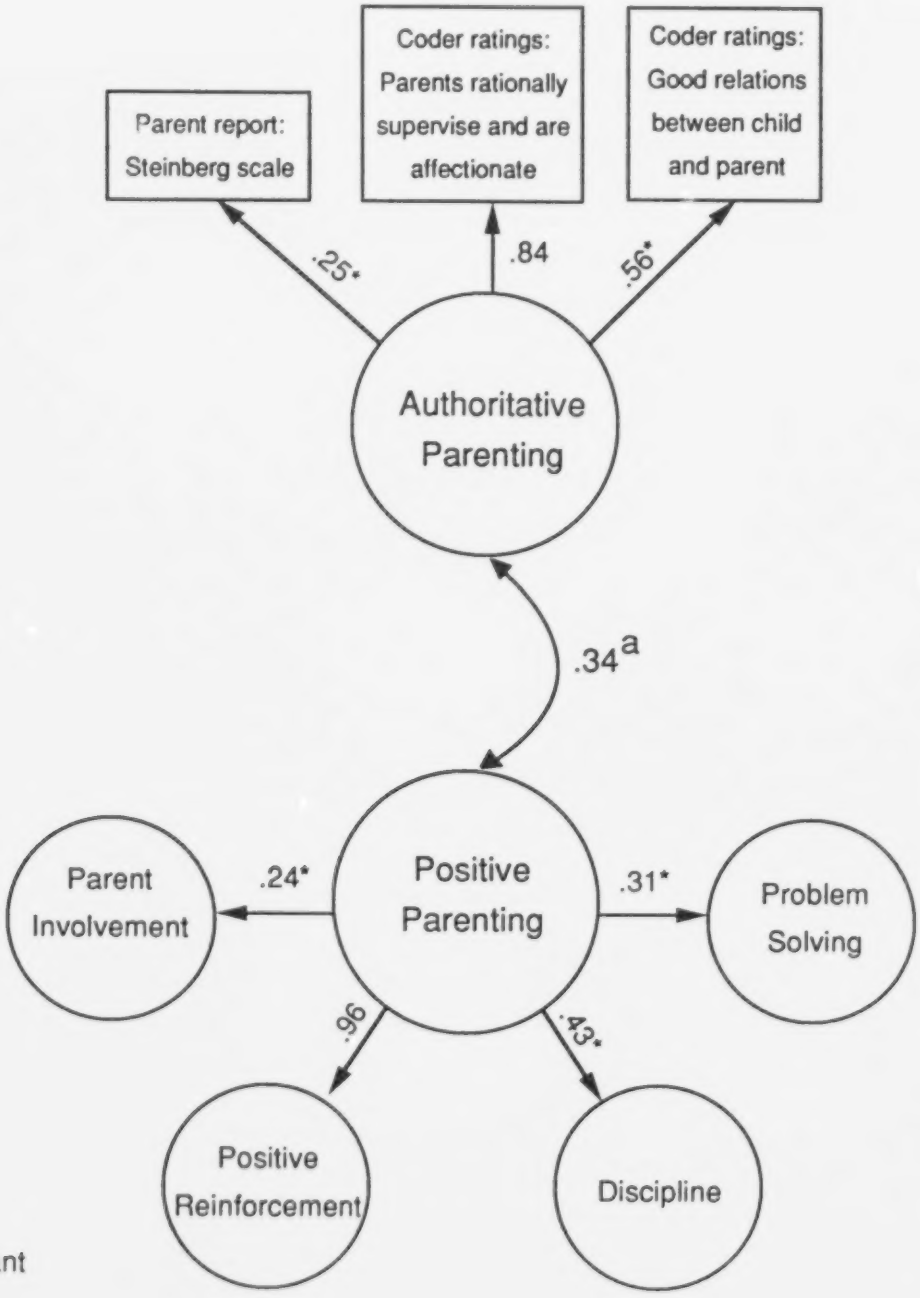
Figure 4. The effect of parenting mediated by the child's antisocial trait.

Figure 1
General Parenting Skills and Adolescent Competence



$\chi^2_{(13)} = 11.9$, $p = .54$

Figure 2
Latent Constructs for Authoritative and Positive Parenting
(measured at Wave 5)

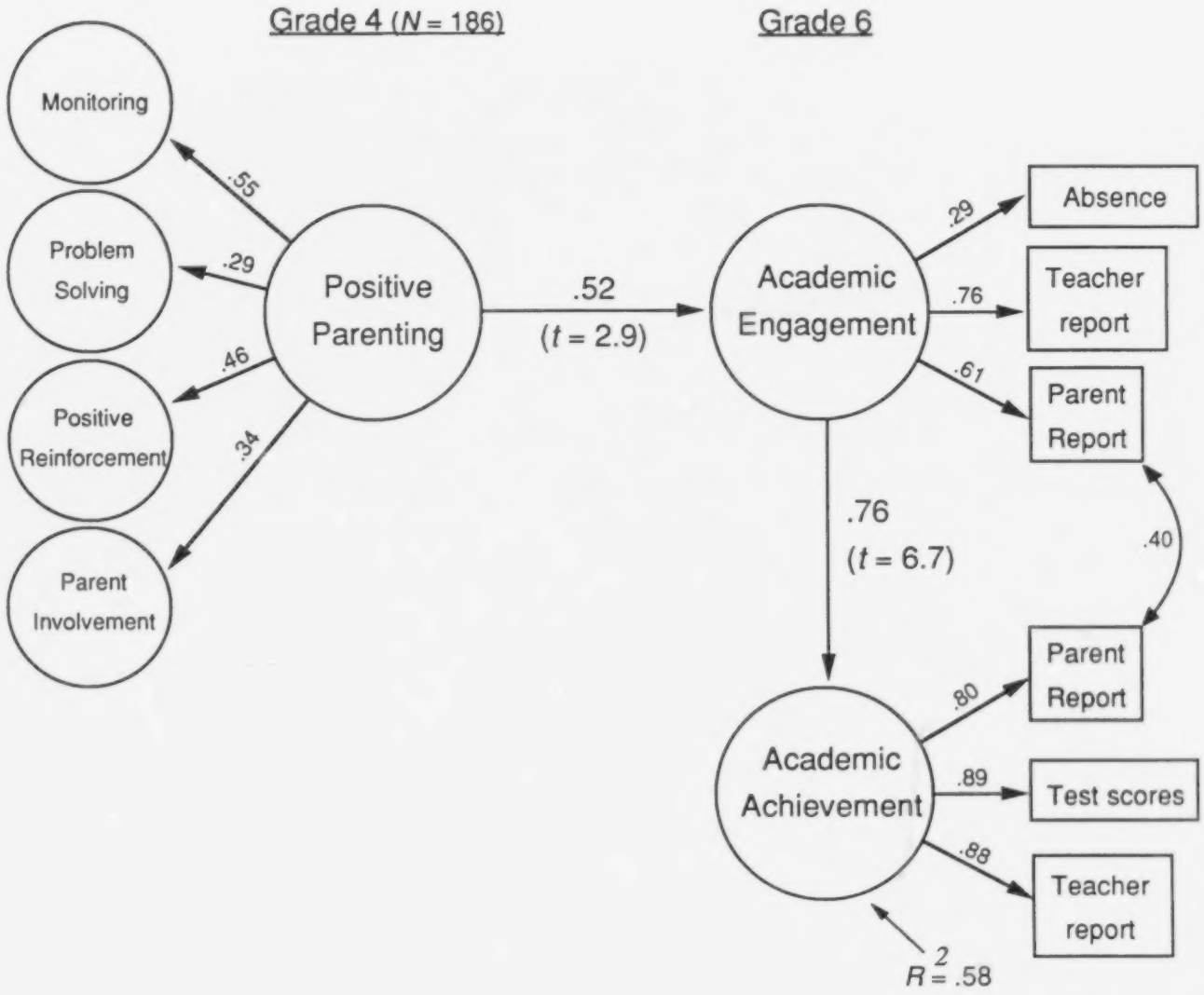


[a]Correlation

*Factor loading significant

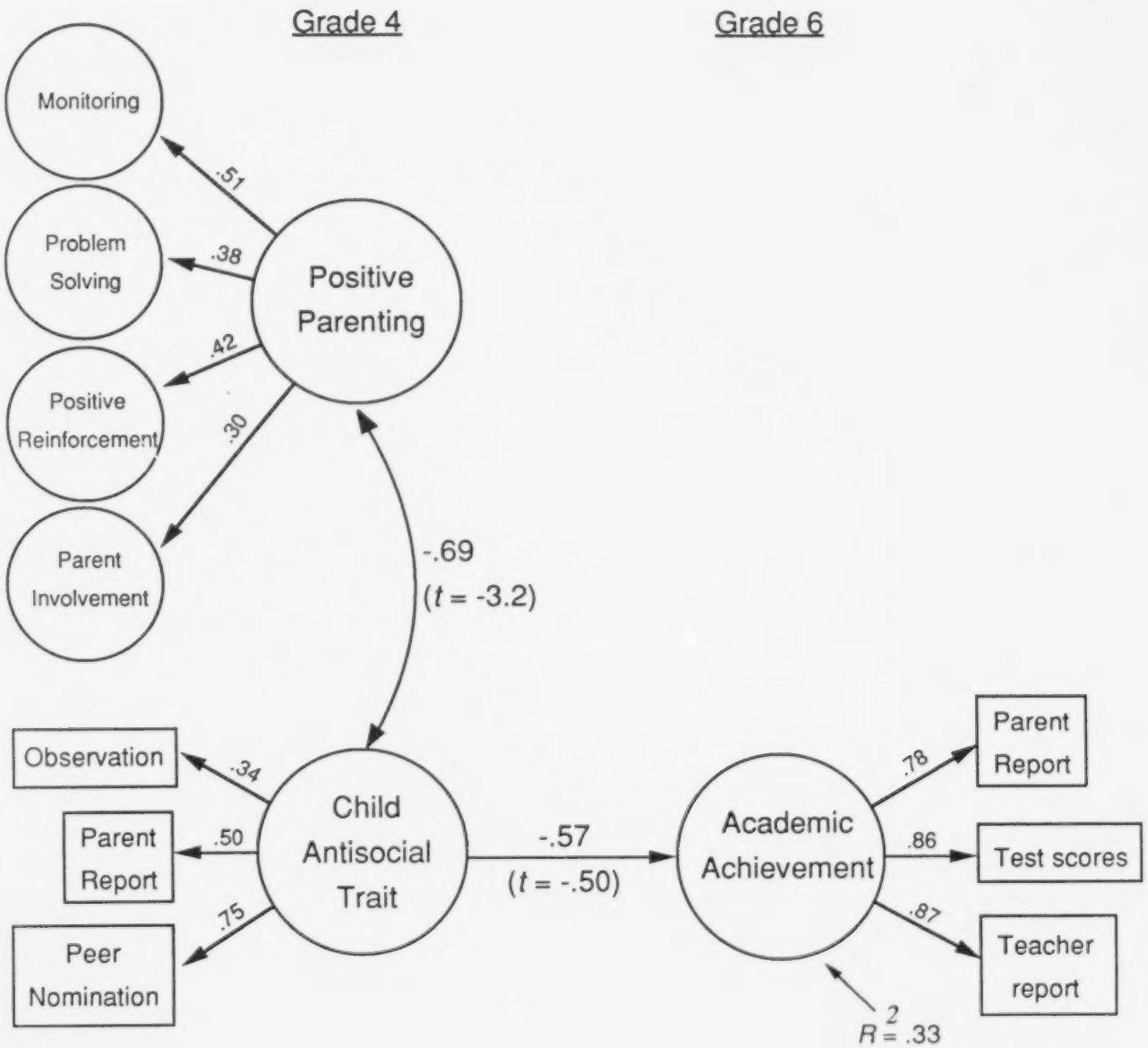
$\chi^2_{(13)} = 13.00$, $p = .45$

Figure 3
General Plus Specific Parenting Skills Predicting Adolescent Academic Achievement



$\chi^2_{(32)} = 27.5$, $p = .69$

Figure 4
The Effect of Parenting Mediated by the Child's Antisocial Trait



$\chi^2_{(33)} = 43.3$, $p = .11$